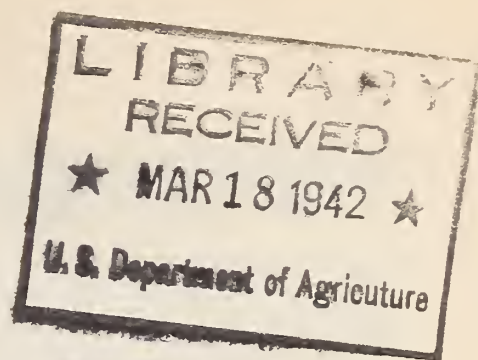


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Marketing Activities

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HIGH-POWERED ORANGE JUICE

By Floyd F. HedlundPage 3

Suppose you had the job of transporting 3 million gallons of orange juice to Great Britain and had only enough tin cans and shipping space for 380,000 gallons. What would you do? We'll never know, but the manufacturers are taking out the excess water.

THIS FARM LABOR BUSINESS

By Harry Henderson.....Page 7

We have been viewing farm labor situation with what might be described as equanimity. The farmers have been breaking production records right and left, so why worry? But the time has come to do a little serious thinking. Take it from us, hired hands will be hard to find in 1943.

WORTH MENTIONING

By Phil Perdue.....Page 13

Do you know how many cigarettes were smoked last year, why the Department of Agriculture is expanding the peanut and soybean crops, or how much farmers cash income totaled in 1941? If not, look at Phil Perdue's page. He has rounded up the information in capsule form.

COTTON AND WAR

By W. B. Lanham.....Page 15

There are long and short staple cottons, but right now the long staple has the inside track. As a matter of fact, long staple cotton can be described as something the Army wants a lot of to make uniforms and other things out of.

HOW ABOUT HORSES AND MULES?

By C. L. Harlan.....Page 19

The farmer undoubtedly has a soft spot in his heart for Dobbin and Hank, but he can never allow sentiment to interfere with business.

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HIGH-POWERED ORANGE JUICE

. By Floyd F. Hedlund

When nutritionists tell you that orange juice is about 85 percent water, your natural response is probably "So what?" As a confirmed drinker of this good old breakfast cocktail, you are mainly concerned with its taste or its eye-opening properties, as the case might be. And you may go a step farther and argue that the juice is one of the best-known sources of Vitamin C--so to heck with the water.

But officials in charge of sending Lend-Lease products to our allies take an entirely different view of the matter. They are the fellows who must make every cubic inch of shipping space count, and water is one thing that only adds to the weight and bulk of the cargo without adding to nutritional value. This leaves only one solution to the problem: The excess moisture must be removed. And that is just what the citrus industry is doing.

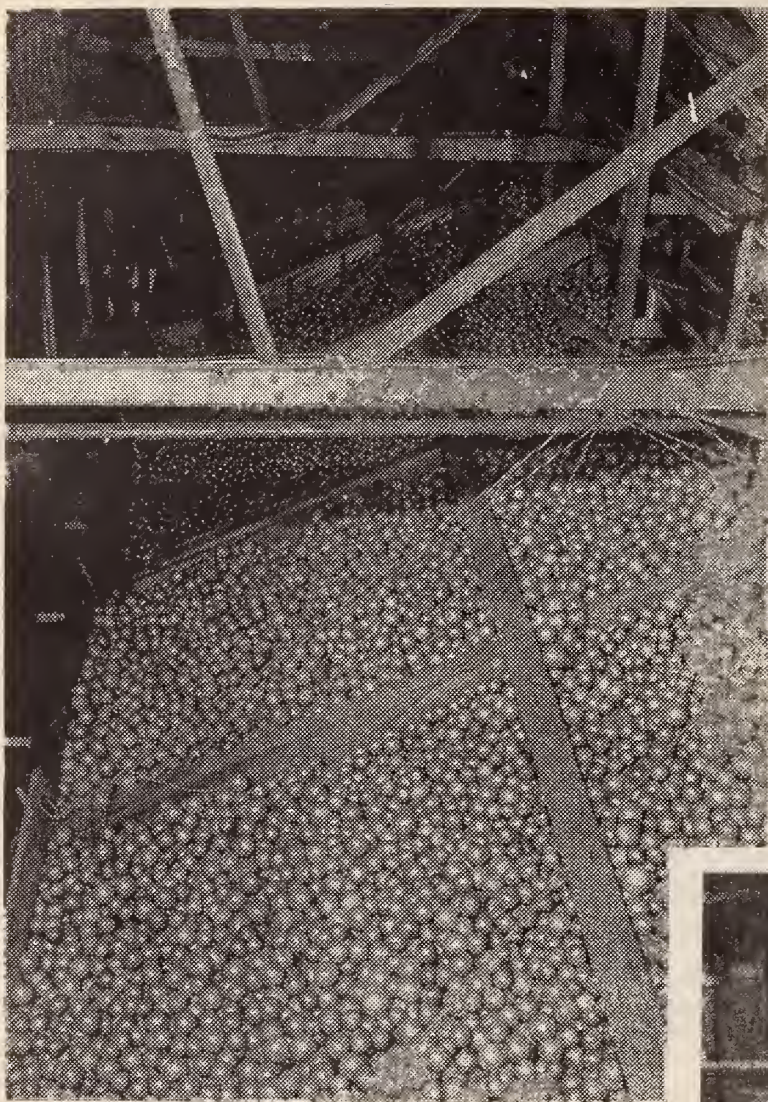
A good start in the way of turning out concentrated orange juice had already been made before the war started. The product was on the market as a base for soft drinks, but when a shortage of shipping space developed a couple of years ago--that was when the British were standing the Germans off single-handed--the manufacturers really got busy. To date, about 380,000 gallons of the high-powered product has been shipped, and this is equivalent to approximately 3 million gallons of single-strength juice.

Orange Juice Rationed in England

It is important to remember that concentrated orange juice is not a luxury product to whet British appetites or to be used as a base for soft drinks. The product is furnished free to little children--those under the age of 2 years--because they have a real need for ascorbic acid or Vitamin C, and concentrated orange juice provides a practical source of this dietary requirement.

The distribution in England is carried on under rigid official controls. "Pharmaceutical houses," what we call wholesale drug firms in this country, pack the juice in six-ounce bottles after it has been blended and standardized and distribute the product to various food centers throughout the United Kingdom. The six-ounce bottle is calculated to last a given time and each family is rationed. The juice is diluted or "reconstituted" with water in the home.

The flavor of concentrated juice varies with the type of fruit used and the manufacturing process employed. Much of the concentrated product compares favorably with fresh orange juice; but some, particularly that made from navel and certain other types of winter oranges, has a rather bitter flavor. Fortunately, British people prefer a touch of this



With a record crop of about 84 million boxes there will be plenty of off-grade oranges to be made into concentrated juice. These bins alone hold enough oranges--and Vitamin C, incidentally--for thousands of British babies.

Supplies of tin are scarce now and shipping space is still a serious problem. But manufacturers have learned to "boil down" the orange juice without destroying its dietary properties. The fresh juice in the flasks, after concentration, just fills the tin can shown. --Photos by W.J. Forsythe



flavor in their foods and they haven't objected to the taste of the concentrated juice.

To be technical, fresh orange juice is concentrated by evaporation under a vacuum that ranges from 26 to 29-3/4 inches. The fresh product, which ordinarily contains from 10 to 15 percent total solids, is "boiled down" so that it ends up with 65 or 70 percent solids. The ascorbic acid content is reduced only slightly during the process and the finished product contains more than 90 percent of the acid that was in the original juice. Ordinarily the juice is pasteurized during the process, but nothing is added--no sugar nor no preservatives. The high degree of concentration adds to the keeping quality of the juice.

Most of the concentrating plants are in California, but Florida has one, and two more are under construction.

Cull Oranges Used

Cull oranges are used in the manufacture of concentrated juice, but don't assume right off that such fruit is unwholesome. The fruit used may be misshapen or blemished, but the quality of the juice is just as good as that from higher grade fruit and it contains its full quota of vitamins. A record orange crop of about 84 million boxes is expected to supply processing plants with an abundant supply of off-grade fruit during coming months, and it is believed that we will be able to furnish the British all of the juice required.

All in all, the purchase of concentrated orange juice for Lend-Lease shipment has been very satisfactory. In the first place, we have provided a good market for cull oranges and thus have contributed to the incomes of domestic producers. Second, if we were to furnish single-strength orange juice alone, it would be impossible to provide Great Britain with the quantity required--shipping space and tin are too scarce. Furthermore, the distribution problem in Great Britain is said to be such that it would be impossible to supply current requirements if it were necessary to handle only fresh juice. The way it is, consideration is being given to expanding the use of concentrated juice to include British school children as well as infants.

-V-

After Axel Holst and Theodor Frolich had recognized human scurvy as a vitamin-deficiency disease in 1907, many years elapsed before the substance responsible for its prevention and cure--which was given the name Vitamin C as the third vitamin to be recognized--was finally separated from foods, identified as a chemical compound of known structure, and manufactured for use in laboratory and clinical work. But even now, in 1942, there is still considerable uncertainty as to how the vitamin acts in the body, and there are probably thousands of people who are suffering from an unrecognized deficiency of Vitamin C.

"BARGAIN" SEEDS ARE SLACKER SEEDS

" 'Bargain' seeds are the biggest slackers on the farm today when every effort is being made to produce sufficient food at the very lowest expense, and they never enlist in the fight against weeds," M. T. Munn, New York State Experiment Station, said recently.

"Use great caution in buying seeds this year, especially if you go outside your own State to make purchases or are tempted by extravagant claims made in certain farm paper advertisements," Munn cautioned.

Catch phrases, such as "free samples," "free catalog," "low prices," "save money," "big bargains," are simply devices to attract prospective customers, said Mr. Munn. "Every farmer who sends away for seeds should do so cautiously and only with a definite understanding that the seed must meet all tests before it will be paid for.

"True it is that the Federal Seed Act is of great help in controlling untruthful statements," Munn continued, "yet it does not prevent the sale of much undesirable seed if one orders it. It is impossible to save money by buying low-priced, uncleaned, untested, or unlabeled seeds because if one takes the trouble to investigate and make actual tests, it will nearly always be found that there is a real reason for the price being so low."

-V-

'42 PARITY PAYMENTS TO BE MADE ON CORN, COTTON, WHEAT, AND TOBACCO

Parity payments for 1942 will be made to growers of wheat, cotton, corn, and tobacco who have complied with parity regulations under the Agricultural Adjustment Administration, the Department of Agriculture said recently.

As in the past, 1942 parity payments are to be made on those of the five basic crops that during the previous crop year brought producers a total return less than parity. The usual provision for payments on rice is not included for 1942 because it appears that returns to rice producers on their 1941 crop will equal or exceed parity. However, the regulations will be amended to provide for payments on rice if later information shows that returns from the crop are below parity.

-V-

According to North Dakota Agricultural College, the larger the turkey, the larger the proportion of cooked meat to dressed weight. The cooked meat of a 13-pound turkey averages 28 percent of the dressed weight, while that of a 30-pound bird averages 34 percent.

THIS FARM LABOR BUSINESS

By Harry Henderson

A farmer is one of the most easy-going fellows you'll ever meet anywhere. If you drive out to his farm on Sunday, he will gladly show you around the place and point out the various schemes he has put into effect for producing crops and livestock a little more efficiently. Should you admire the fine stand of corn growing in the field across the road or praise his excellent herd of Jerseys, he is likely to invite you up to the house for a drink of cider.

You'll want to be careful about one thing, however. During your visit to the country don't--under any circumstances--bring up the subject of farm labor. If you do, you'll see a remarkable change come over your genial farmer friend. The smile will leave his face as he launches into a long and bitter story of how hard it is to find a hired man who knows one end of a cow from another. And he'll tell you a still longer and bitterer story of the high wage rates he must pay to get help of any kind--good or bad. The first thing you know you'll be in your car and headed back to town without ever having seen the farm and still thirsty for a drink of cider.

Labor Supply is Smaller

In a way, this more or less general attitude of farmers is understandable. Hired hands aren't as plentiful as they were even a few months ago. During 1941 the pinch was felt rather sharply in such States as New York, Connecticut, and New Jersey. On the Eastern Shore of Maryland and Virginia, and in North Carolina, obtaining enough labor for the harvest of certain crops was a genuine problem. In the Pacific Northwest, farmers gradually began to realize that a large surplus of farm labor no longer existed, and the labor force remaining attached to agriculture received a fuller amount of employment than in the past.

The general complaint that fewer skilled men are available is undoubtedly true. Opportunities for employment in industry have been expanding and have attracted farm workers who were the most likely candidates for industrial jobs. These were usually the most highly trained men, the very ones who were most stably employed in agriculture. Dairy farmers, for example, who have employed year-round men familiar with machines, have lost many of them to war industries and such workers were probably replaced by men with poorer qualifications.

Wage rates have risen--just as the farmers point out. On January 1 of this year monthly wage rates had advanced to \$47.77 without board from \$36.61 a year earlier. Day rates paid farm workers averaged \$2.12 without board compared with \$1.59 on January 1, 1941.

But after taking all of these things into consideration, there is still one important thing to remember about the farm labor situation:

For the country as a whole, no farm labor shortage has been apparent to date. All rumors to the contrary can be taken with a big grain of salt.

The outturn of crops in 1941 was of near-record volume and was rather closely apportioned to meet current needs. The total number of meat animals on farms January 1 this year was the largest of record. The quantity of milk produced in 1941 was by a considerable margin the highest yearly production ever obtained. The 1941 annual production of 40,712,000,000 eggs was the largest of record. We can't honestly argue, then, that we had a Nation-wide farm labor shortage in 1941.

Oversupply Confused with Normal Supply

It should be kept in mind that agriculture during the depression had a great oversupply of workers. Both unemployment and under-employment were prevalent. Thus many farmers have come to consider this oversupply as the normal supply and to consider any reduction in the surplus as a shortage. This attitude has prevailed even though enough workers are available--if efficiently utilized--to carry on all farming operations.

Another evidence of confusion has been the tendency in some cases to identify increases in wages, irrespective of the number of workers available, as a shortage. In other words, our friend the farmer may be perfectly willing to pay a hired man \$45 a month without board. But when he fails to find a man willing to work for that wage, he identifies the situation as a "shortage." Actually, there may be only a shortage of \$45-a-month men.

What About 1942?

All right, you say, suppose we didn't have a serious farm labor shortage last year. That is all water over the dam--or corn in the crib. Right now we are engaged in the biggest armament supply job in our history and our armed forces are being expanded to record levels. Will farmers be left with enough workers to carry on necessary farming operations in 1942? That is a good question and to answer it satisfactorily a little background information must be presented.

Let's look at the industrial picture first. The country is shifting over to a full wartime production of munitions at the present time. We are curtailing all except the essential consumers' goods. This means we are cutting down on production of such things as automobiles, refrigerators, and radios. The workers who have been producing these items now are, or will be, turning out tanks, planes, bombsights, and shells.

But don't forget that the change-over takes a little time. The automobile factory that has been producing sport roadsters can't throw a lever and begin turning out heavy tanks. Likewise, the plant that has been manufacturing pin-ball machines can't instantaneously switch

over to an all-out production of hand grenades. New tools must be installed and new factories constructed in some instances. We are in the middle of that phase right now, so up to July 1, at least, it is expected that war industries will make no unusually heavy demands on the available supply of farm workers. Munitions workers for a while will be recruited from industry itself.

The need for men to expand our armed forces will continue, however, and the men accepted for service will, in general, be those who are most skilled and most capable of carrying on farm work. This drain on manpower can be expected to continue until the war is won. Thus the supply of workers will be constantly diminished, and the efficiency of the labor force remaining to agriculture will be constantly reduced.

More Labor Problems Expected in 1942

While in some parts of the country farmers should experience no difficulty in obtaining an adequate supply of workers--and no Nation-wide shortage is feared--the labor supply is certain to be reduced in more areas this year than in 1941. The spots where farmers will be confronted with the most difficulties include parts of New England, the Middle Atlantic States, and the East North Central States--the highly industrialized sections. Other areas will be affected, too, particularly where new war industries have been established.

Farmers may expect to pay higher wages in 1942 as a direct result of smaller labor supplies and an increased demand for workers. The table below shows what appears to be a reasonable estimate of wage rates farmers will be paying by July 1, and wages are expected to continue relatively high to the end of the year.

Forecast of Farm Wage Rates on July 1, 1942, with Comparisons
(Without Board)

Area	Monthly Rate		Daily Rate	
	1941	1942	1941	1942
	dollars		dollars	
New England	72	82	3.22	3.50
Middle Atlantic	58	65	2.95	3.20
East North Central	52	59	2.80	3.00
West North Central	48	53	2.70	2.90
South Atlantic	30	32	1.40	1.55
East South Central	26	28	1.15	1.25
West South Central	32	35	1.55	1.70
Mountain	63	70	2.80	3.05
Pacific coast	78	87	3.35	3.60
United States	45	50	1.98	2.15

(The foregoing figures are based on the following correlations: Index of factory employment vs. index of industrial production; labor supply-demand ratio vs. index of factory employment (preceding month); and monthly and weekly wages vs. labor supply-demand ratio. The analysis was prepared by the author from data collected by the Bureau of Labor Statistics, the Federal Reserve Board, and the Bureau of Agricultural Economics.)

By the middle of 1943, war industries and the armed forces will undoubtedly be taking men from farms at an increasing rate in the all-out effort to win the war. Migration of workers from rural areas will continue. Agriculture will have a still smaller labor supply at its disposal, and wage rates will be still higher. The farm labor situation may really be serious in 1943, so it is a good idea to begin thinking now of ways and means to reduce its impact on our farm economy.

Farmers Can Help Themselves

A whole lot can be done by the farmer himself in the way of solving the farm labor problem--and thus getting the production job done. One thing he can do, and has been doing, is to work longer hours. Some farmers are already working an 80- or a 90-hour week, and these fellows can't be expected to stretch their workday any farther. But there are many farm operators who can put on more steam if it means turning out a normal production.

More family workers can be used, and this does not necessarily mean confining the increase to the male side of the house. When Sally Ann comes home from college for the summer, she can take on the job of driving the tractor or doing some of the other light farm chores. A summer spent in the open air and sunshine will harden her up for school work and the Junior Prom next fall. German, Italian, and Japanese women are taking men's places and we can't deny that the Axis nations, so far, have been doing fairly well.

Neighborhood labor pools can be formed among groups of farmers, and this scheme offers every possibility of being successful. Let's suppose that 10 farmers in a given community have a meeting at the schoolhouse and decide to pool their total labor supply, which might consist of 15 hired men. The plan might be operated as follows: When John Smith gets his corn plowed and work slackens a little, he can send his hired man over to Henry Jones, whose corn is looking a little weedy. The two farmers could work out an adjustment in the salary paid the hired man, who probably wouldn't care who paid him so long as he was fully employed. Similar pools could be operated for the swapping of farm machinery, with some adjustment provided between farmers for bearing the expense of depreciation. If the labor situation in the community were acute, the pooled machinery could be operated at night as a last resort. Cooperation between farmers in times of stress is nothing new and right now is the time cooperation can pay big dividends in the way of increased production.

The farmer can go a long way toward keeping his hired man if he follows the policy of paying higher wages--and by paying higher wages we don't necessarily mean meeting the industrial level. Joe Hired Hand, who has a fairly steady job, isn't going to be lured to the factory so easily if his boss gives him fair raises as prices of farm products go up. Joe knows his farm job will continue after the war, and, furthermore, he hates to make a change, learn a new trade, and move his family to a strange city where living costs are high. But Joe will be lured away if he feels that the farmer is not giving him a reasonable part of the increased farm income he has helped to bring about.

Living Conditions Can Be Improved

The farmer can also improve the living conditions of Joe Hired Hand and his family. The "hired hand's house" doesn't need to be remodeled in the Hollywood tradition, with landscaped gardens and swimming pool, but it can be made more liveable and more attractive--don't forget that Mrs. Hired Hand helps Joe make up his mind to a considerable extent. In Pacific coast areas farmers have found that improved housing conditions have helped to attract migratory workers who might otherwise have kept on the move.

Farmers can uncover many new sources of labor supplies right in their own communities if they try. Such workers might include high school students, local nonfarm women, older men, and others not normally employed in agriculture. Workers obtained from these sources will not always be so efficient as farmers would like, of course, but the problem now isn't so much one of "what kind of help" as it is "help of any kind." The local situation should be thoroughly explored first, in view of the tire shortage.

The Government Helps

Of course, the farmer can't solve his own problems in every instance. In some areas, the schemes outlined will not work because there simply isn't enough local labor of any kind available. That is where the Government steps in.

As John M. Corson pointed out last month in MARKETING ACTIVITIES full use and support of the U. S. Employment Service is one of the best means of obtaining farm workers in many localities. The labor exchange facilities of the Employment Service, the general labor supply agency for all defense production, are being expanded to include a farm-job specialist in each of the regional, State, and local offices. The U. S. Department of Agriculture is assisting by contributing its extensive and detailed knowledge of crops, acreages, livestock and poultry numbers, periods of peak seasonal farm activities, and related information. Increased emphasis is being given by the Department of Agriculture, through its Farm Security Administration, to the establishment of mobile camps in areas where adequate housing was a severe problem in 1941.

Farmers must always keep in mind that they have been given the job of furnishing the biggest supply of farm commodities ever produced in this country. To do that job means that they must use every bit of ingenuity they possess in order to produce a few more bushels of corn or a few more pounds of milk. The farm labor problem, which could be a serious stumbling block, can be solved. With teamwork on the part of farmers, and with assistance from the Government, the Food-for-Freedom Program will become an actuality.

-V-

DEADLINES SET FOR APPLICATIONS FROM COTTON IMPROVEMENT GROUPS

Dates for filing applications by organized cotton improvement groups for free classification and market news service for the 1942 crop are August 1 and August 15, depending on locality.

Applications may be made by any organized cotton improvement group as soon as its members have planted their cotton, but the applications must be filed with the Agricultural Marketing Administration not later than August 1 for groups in Florida, Georgia, South Carolina, Alabama, Mississippi, Arkansas, Louisiana, and the counties of Texas lying entirely or for the most part east of the 100th Meridian.

In the areas that plant later, the final date for filing is August 15. These include the groups in North Carolina, Virginia, Tennessee, Kentucky, Missouri, Oklahoma, New Mexico, Arizona, California, and all counties in Texas lying entirely or for the most part west of the 100th Meridian.

Officials are urging organized groups to get in their applications as early as possible. There is some likelihood, it is said, that more applications will be received than can be handled with available funds. Should that be the case, the order in which the applications are received may be one of the considerations determining the groups to be served.

-V-

Use of tobacco in any form--cigarettes, cigars, snuff, or chewing--around tomato plant beds is the next thing to sabotage of the national drive for increased production of canning tomatoes, according to C. E. Scott, University of California Agricultural Extension Service.

Scott explains that the virus of tobacco mosaic, a highly contagious disease of tomato plants, is often present in active form in smoking and chewing tobacco, and snuff. The disease can be carried on the hands of workers from the tobacco to the young tomato plants. He recommends that any worker using tobacco should thoroughly wash his hands with laundry soap before handling the young plants.

WORTH MENTIONING**By Phil Perdue**

TOBACCO growers no doubt are gratified at the record 1941 consumption of 206 billion cigarettes, plus about 6 billion cigars--which was a high since 1930--and also increased consumption of chewing tobacco and snuff. Only pipe tobacco declined. As a result, returns to growers for the 1941 crop are figured to be about 296 million dollars compared with 192 million in '40, despite smaller crops in 1941.

-V-

FARMERS' cash income in 1941 reached 11,771 million dollars, highest total since 1920. But living costs have gone up for farmers, as for everyone else; they're having to pay higher wages for their help; and then, too, there's always that mid-March reckoning.

-V-

JUST WHY the Agriculture Department is so interested in greatly increasing the output of agricultural products that supply fats and oils--particularly peanuts, soybeans, and flaxseed--is better understood when you realize how indispensable they are. Fats and oils are necessary for food, soap, paints, printers' ink, linoleum, industrial lubrication, and in the manufacture of metals, textiles, leather goods, and the all-important glycerine. With our imports greatly reduced, we must produce more for ourselves--for the high caloric food needed by our fighting forces and civilian workers; to paint our ships, planes, tanks, and guns; for the special lubricants needed in high-speed motors and machines; and for the high explosives for bombs and shells.

-V-

DESPITE the fact that horses and mules require neither gasoline nor tires, the numbers of these work animals on farms continue to decline appreciably each year. Farmers some of these days may find themselves short of both "hayburners" and petroleum-powered machines. (See page 19)

-V-

ON THE THEORY that some of our war slogans lack verve, someone suggests that we adopt as our war cry the words spoken by the ship's chaplain that morning at Pearl Harbor. When the bombs began to rain down, the chaplain, quickly manning an anti-aircraft gun, is supposed to have cried out: "Praise the Lord and pass the ammunition!"

-V-

PREMIUMS OFFERED TO ENCOURAGE LONG STAPLE COTTON PRODUCTION

To encourage a shift from the production of short staple cotton to the longer staple length, Commodity Credit Corporation will increase the premiums to be offered on longer staple lengths under the 1942 loan program. Cotton of longer lengths is needed to meet military requirements, the Department of Agriculture explains.

Premiums will be increased on the longer staple lengths of upland cotton, the Department says, to enable producers to realize the same per acre return from the longer cottons, which have low yields, as from the shorter cottons, which generally have higher yields. Growers are requested to make the shifts within their present acreage allotments and are urged to exercise special care in picking and ginning to obtain the highest possible grades.

Producers of American-Egyptian cotton will be protected against serious price declines through an offer by Commodity Credit Corporation to purchase this cotton, having a staple length of 1-1/2 inch or longer, at a price of 35 cents per pound, net weight, for U. S. grade No. 1, 34 cents for grade No. 1½, 33 cents for grade No. 2, 32 cents for grade No. 2½, and 30 cents for grade No. 3. The Corporation offers to purchase Sea Island cotton having a staple length of 1-1/2 inch or longer on the basis of 36 cents per pound for cotton of U. S. Grade No. 2 and staple length of 1-1/2 inch, with appropriate premiums and discounts for other grades and for other staple lengths in excess of 1-1/2 inch.

-V-

DEPARTMENT OF AGRICULTURE SELLS SECOND-HAND TOBACCO; MAKES PROFIT

When you're through with something you generally throw it in the ashcan. But not the Department of Agriculture, which recently turned up with a profit on some "second-hand" tobacco.

A year ago, the Department purchased 1400 pounds of tobacco for use in conducting schools for tobacco inspectors. But after a year's handling, the tobacco was no longer usable. Hoping to salvage as much of the original outlay as possible, the Department placed the tobacco on the auction floor for sale.

When it was sold, the tobacco brought approximately \$100 over what was paid for it. Rapidly rising prices for smoking tobacco make even "second-hand" leaf a good buy.

-V-

Hens laid 3,371,000,000 eggs in February--a record for the month.

COTTON AND WAR

By W. B. Lanham

The Quartermaster General was in no mood for guessing. "What kind of cotton do we have?" he demanded.

It was during World War I and the Quartermaster General knew that to equip the Army properly he needed millions of yards of durable cotton materials that require a great deal of medium or fairly long-staple cotton of acceptable grade.

But during World War I he did not get a reply. Information was available on the number of bales on hand, but no one knew whether it was short or long in staple -- neither did anyone know whether it was high or low in grade.

The Quartermaster General was in no mood for guesing. "What kind of cotton do we have?" he demanded.

No, this isn't where you came in. This is World War II and again the Quartermaster General knows that to equip the Army properly, millions of yards of high-quality, durable cotton materials are required. However, unlike the situation in World War I, this information is now readily available to him.

Since 1928, the U. S. Department of Agriculture has been keeping a close check on the quality of cotton produced. For some time before 1927, spinners, ginnerers, and farmers had been asking questions about what kind of cotton was being produced. Then Congress passed the Cotton Grade and Staple Statistics Act, which provided for estimating the grade and staple of the carryover and crop, and what is now the Agricultural Marketing Administration went to work to get the data.

The results verified what the experts had long suspected--that more than half of the cotton being produced was of 7/8 inch staple or shorter. This short cotton was just what the trade didn't want, since it wasn't good for much except very coarse materials and didn't bring good prices to producers. Cotton shorter than 7/8 inch wasn't even tenderable on futures contracts, and in 1929 one bale out of every five was shorter than 7/8 inch.

Farm Leaders Get Busy

Farm leaders all over the South then got busy encouraging the planting of better varieties of cotton seed, both to meet the needs of industry and to help growers raise the kind of cotton that would bring bigger profits.

To measure the improvement in quality and to help growers determine the worth of the improved cotton, the Smith-Doxey amendment was



The first step in determining the grade and staple of a bale is the taking of a representative sample of the cotton. This sample is then sent, along with others, to one of the Government classing offices that are strategically located throughout the Cotton Belt. Experts class the bale. If the grower is a member of a Smith-Doxey group, he is sent an official classification slip that tells him the exact quality of his cotton.



Armed with his official classification slip, which indicates the grade and staple of his cotton, the grower is in a much better bargaining position when he sells. Farmer-members of Smith-Doxey improvement groups also are furnished with a free market news service which helps them determine when and where to sell.

added to the original act. It is not necessary to describe in detail just what was done--the results tell the story. In 1941, instead of almost 60 percent of all cotton being classed as "short," only about 12 percent was 7/8 inch or shorter. The predominating length had changed from 7/8 inch in 1929 to 1-1/32 in 1941. And, in addition to this increase in medium staple cotton, there was a 50 percent increase, in "long" cotton; that is, cotton with a staple of 1-1/8 or 1-3/16 inches.

The grade and staple reports and the Smith-Doxey Act have been given a lot of credit for these results. The Smith-Doxey Act provided for higher quality and better marketing by offering organized groups of growers a free classing and market news service. Such a service has placed the cotton producers in a better bargaining position, and the higher prices received for the better cotton have continued to encourage them to produce the higher quality.

We may have a shortage of cotton 1-1/8 inches and longer in spite of the 50 percent increase over 1929. The possibility of such a shortage is indicated by the increased loan premiums for 1942. But if we were not growing about five times as much one-inch cottons as we were 13 years ago, the situation undoubtedly would be five times as bad.

Smith-Doxey Service Popular

Cotton producers have been enthusiastic about the Smith-Doxey service, for every year since this program has been offered the number of farmers participating has more than doubled. And the acreage planted has leaped in about the same proportion.

In 1941, the total number of producers cooperating was nearly 279,000 compared with a little over 128,000 the previous year. The total acreage in 1941 was about 9 million acres compared with about 4 million in 1940.

In a recent study of groups that have renewed applications for the Smith-Doxey service over a 3-year period, it was found that in most instances groups are sending in considerably more samples for classification each year and that there has been decided improvement in the average staple length of cotton grown by those groups.

No doubt the Quartermaster General is happy about the improved quality of the cotton that has resulted from this broad Federal-State improvement program. We know that the farmers, ginnerers, and spinners are.

-V-

The Bureau of Agricultural Chemistry and Engineering has demonstrated that as much as 2 tons of starch per acre can be produced in the South from sweetpotatoes, compared with about 1.5 tons of starch per acre from corn in the Middle West.

DRIVEN-IN RECEIPTS OF LIVESTOCK IN 1941 SUMMARIZED IN REPORT

And still they come to market by motor truck! A report recently issued by the Department of Agriculture shows that driven-in receipts of livestock at 17 markets in 1941 were 64 percent of the total, compared with 62 percent in 1940.

The report, compiled by the Agricultural Marketing Administration, states that the proportion of drive-ins to total receipts has tended to increase since 1916, reflecting the extension of good roads and the expanding use of the motor truck. Driven-in receipts at the 17 markets for which comparable data are available accounted for only about 2 percent of the total receipts in 1916.

The report, "Driven-in Receipts of Livestock, 1941", may be obtained upon request to the Agricultural Marketing Administration, Washington, D. C.

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ANNOUNCE PLAN TO IMPROVE FARM EGG MARKETS IN SOUTH

A plan to provide egg producers in Southern States with a supported market to assist in meeting special egg marketing problems that arise in that section of the country during the spring months was announced recently by the Department of Agriculture. Basically, the plan proposes to make use of public refrigerated warehouses in the South as stations for the purchase of eggs, at announced prices, in lots of 10 cases or more. The eggs would be bought for the Surplus Marketing Administration for domestic distribution to public aid families, for free school lunches, Lend-Lease and Red Cross shipment, or for market stabilization reserves.

Under the program, public warehouses will buy the eggs from vendors at announced prices, based on at least 85 percent of parity for each State, on designated days each week. Federal-State inspectors will be available at the warehouses on these days and after grading, the eggs will be assembled and stored by the warehouses for distribution as designated by the AMA. Farmers, cooperative organizations, small dealers, and storekeepers can assemble the eggs in lots of at least 10 cases and dispose of them at the designated warehouses at specified prices for specified grades.

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The Department of Agriculture's Cereal Laboratory has made very satisfactory breads with 15 percent wheat germ and 85 percent clear white wheat flour. Such breads contain most of the vitamins of whole wheat bread and about 70 to 80 percent of the minerals.

WHAT ABOUT HORSES AND MULES

By C. L. Harlan

The machine age has been blamed for a great many things--from jangled nerves to a general lack of exercise on the part of our citizens. Since adequate statistical evidence is hard to obtain, these complaints may or may not be justified. But figures can be presented to show that machinery--tractors, trucks, and automobiles--has caused a marked decline in the horse and mule population on farms.

Just consider the extent to which farms have become mechanized during the past 25 years. In 1915 there were only 25,000 tractors on all the farms in the United States, but by 1940 that number had risen to 1,545,000. Trucks had increased from 25,000 to 1,047,000. And automobiles had soared from 472,000 to 4,144,000. Small wonder that work stock has been used to a decreasing extent.

Take horses. The total number increased gradually from 1867 until a peak of 21,431,000 was reached in 1915. Then the inexorable effect of motor vehicles, both on farms and in the cities, began to be felt and the horse population went into a decline that has continued up to the present time. On January 1, 1942, the Crop Reporting Board found that horses on farms numbered only 9,856,000 head--about the same number we had on farms 'way back in 1877.

Mule numbers reached a peak in 1925, when a counting of noses showed 5,918,000 on farms. But mules, even with their constitutional stubbornness, could not resist the ever-increasing tide of power machinery for long. Numbers began to dwindle and on January 1 of this year only 3,811,000 were left. That is about equal to the number on farms in 1907.

Decline Arouses Interest

The downward trend shown in horse and mule numbers this year has puzzled some people, and a few have written to the Department of Agriculture to find the answer. In general, their letters read like this:

"I have seen your Annual Livestock Inventory and I view with alarm the decline shown in numbers of horses and mules this year. Here we have on our hands one of the biggest food supply jobs in the history of the country, we may have a hard time getting new machinery, and tires for the machinery we do have are already difficult to obtain. It seems to me that farmers should get busy and build up a big supply of work animals for use during the emergency."

The writers of letters like this have overlooked one important fact: The decrease in work stock numbers this year is a circumstance that farmers can't remedy in a short period of time. As a matter of fact, if a campaign were started now to raise more colts, it would take 3 or 4 years before any of these colts would reach working age. That is quite a

while, when weeks--and even days--are important to our production effort. Of course, we can see now that it might be advantageous to have more horses and mules, just in case, but the story of why we haven't--like so many other shortages we have met up with during the emergency--is the story of economics.

The history of the present work stock situation properly begins in 1932, at the depth of the depression. At that time prices of work stock had declined much less, relatively, than prices of other classes of livestock. And feed prices were very cheap--much cheaper, relatively, than gasoline. In view of these favorable factors, interest in colt raising was stimulated and resulted in a rather widespread demand for brood mares. The number of colts less than 1 year old began to increase, with the number of horse colts increasing from 413,000 in 1932 to 706,000 in 1938. Mule colts under 1-year old increased from a low of 49,000 in 1933 to 114,000 in 1941.

During this period prices of both horses and mules tended to rise, with the farm value of horses rising from \$53 in 1932 to \$99 in 1937, and mules from \$61 in 1932 to \$130 in 1937. But during the same period, tractor manufacturers made rather marked improvements in their machines, especially in general purpose tractors that could be used on medium-sized farms. When the price of work stock reached the point where it cost almost as much to buy a good team as it did to buy a new tractor, farmers tended to make needed replacements of horse power with mechanical power. Another factor tending to hasten the shift to machinery was a rather widespread attack of sleeping sickness in horses, which increased the hazards of raising them.

Meat Animals vs. Work Stock

Prices of horses and mules began to decline after 1937 and the decline continued up to about the first of this year. But during the same period, prices of meat animals, especially cattle, began to show improvement. The narrowing spread between relative prices of work stock and meat animals is significant, because prices play a big part in helping the farmer decide what to raise or what not to raise. If he can't make at least as much, relatively, on his work stock as he does on his meat animals, he sees little reason for bothering with horses or mules. And he hasn't been bothering with them much.

Just how he will view the situation next year or the year after is hard to forecast. The demand for work stock may increase, particularly if the war is long drawn out. Certainly our production job will be a big one; farm machinery won't be as easy to obtain as formerly; and the rubber tire situation may become worse before it gets better. These factors all may have a direct effect on the demand for work stock, and indirectly on our horse and mule population. During the past few months there apparently has been some improvement in the demand--prices advanced sharply from the middle of December to the middle of February.

Looking farther ahead, we can offer one tip to people who are interested in work stock trends. If the present advance in prices continues, and if the mechanical power situation becomes serious, another upturn in colt raising can be expected. This will tend to increase the demand for good brood mares. Farmers who are convinced that the war will last quite a while, and who wish to insure their farm power situation, may find brood mares at current prices a good investment.

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RIGHT SIDE OF BEEF MORE TENDER THAN LEFT; EXPERTS ARE PUZZLED

Studies carried on at the Kansas Experiment Station to determine the influence of freezing on the tenderness of beef have brought out the interesting fact that beef from the right side was significantly more tender than that from the left. No satisfactory explanation can be offered for this finding.

The study showed that freezing has no influence upon the tenderness in beef that has been aged, though this may vary among the animals.

Studies conducted on the relative merits of quick and slow frozen meats lend little support to the belief that quick freezing results in maintaining a more palatable product than slow freezing. The results show that the smallest total loss (drip and evaporation) occurred in the quick frozen steak broiled while frozen and that the largest loss occurred in the slow frozen meat thawed before broiling.

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RECORD NUMBERS OF MEAT ANIMALS SHOWN BY 1942 LIVESTOCK INVENTORY

The annual livestock inventory released recently by the Department of Agriculture shows that the total number of meat animals on farms January 1 this year was the largest of record. Cattle and sheep numbers both set new all-time high records, and hog numbers reached the fourth highest level in 15 years.

The unusual increase in numbers of meat animals this year was due to several factors, the Department pointed out. In the case of cattle, the increase was largely a continuation of the upswing in the cattle number cycle--a periodic increase in cattle production for 6 or 8 years followed by a decrease for a somewhat similar period. With sheep the increase reflected relatively high prices for lambs and wool, a favorable lambing season in 1941, and very good feed and range conditions. Governmental actions of several kinds encouraged a larger production of hogs than would otherwise have occurred.

PRODUCERS INTEND TO RAISE
BIGGER TURKEY CROP IN 1942

The first indication that producers may raise more turkeys than last year was seen in an "intentions report" issued recently by the Department of Agriculture. Turkey producers on February 1 intended to buy or hatch about 8 percent more poults than a year ago, the report said.

The Department pointed out, however, that an "intentions report" does not necessarily show the number of turkeys that will be raised. Intentions and actual performance may differ somewhat, depending on the price of feed, the supply and price of hatchery eggs, and poult prices during the hatching season.

In former years, 1941 excepted, the intention of turkey producers to buy and hatch poults has slightly exceeded their actual performance. In 1938, intentions exceeded performance by 3 percent, 1939 by 2 percent, in 1940 by 4 percent. But in 1941 slightly more turkeys were produced than was indicated by the February 1 report.

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EXECUTIVE ORDER NO. 9069
CONSOLIDATES MARKETING WORK

On February 27, President Roosevelt signed Executive Order No. 9069, which, among other things, consolidates the marketing work of the Department of Agriculture into one over-all agency. The sections of the order that pertain to marketing are as follows:

(A) The Surplus Marketing Administration (including the Federal Surplus Commodities Corporation as an agency of the Department of Agriculture), the Agricultural Marketing Service (except the Agricultural Statistics Division), and the Commodity Exchange Administration of the Department of Agriculture and their functions, personnel, property, and records are consolidated into an agency to be known as the Agricultural Marketing Administration of the Department of Agriculture, which agency shall be administered under the direction and supervision of such officer as the Secretary of Agriculture shall designate.

(B) The Agricultural Statistics Division of the Agricultural Marketing Service, Department of Agriculture, and its functions and the personnel, property, and records used primarily in the administration of its functions are transferred to the Bureau of Agricultural Economics of the Department of Agriculture.

Mr. Roy F. Hendrickson, formerly administrator of the Surplus Marketing Administration, has been named administrator of the new over-all marketing agency. C. W. Kitchen and E. W. Gaumnitz have been named Associate Administrators.

STUDY OF FLORIDA ORANGE QUALITY TO AID IN SETTING UP STANDARDS

A recent Department of Agriculture report on the internal quality of Florida oranges reveals that 98 percent of the fruit examined contained at least 4.5 gallons of juice per standard box of 1-3/5 bushels. The periods covered extended from the middle of October throughout the maturity inspection seasons of 1938, 1939, and 1940.

The quantity of fruit that met various minimum percentages of total soluble solids increased in fairly uniform progression throughout the maturity inspection seasons, the report shows. After the first of November, a large majority of the fruit contained more than 9 percent solids.

These and other facts presented in the report are expected to aid in an intelligent approach to the establishment of standards for internal quality of oranges. The report, "Analysis of Data Relative to the Maturity of Florida Early and Mid-Season Common Sweet Oranges." was prepared by William E. Lewis, and may be obtained upon request to the Agricultural Marketing Administration, Washington, D. C.

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SMOKED CHEESE NOW HAS PERMANENT PLACE

The preserving of foods by smoking has its origin in antiquity, but it is only within the past few years that smoked cheese has come into its own in this country. With the smoked flavor as a main objective, studies were undertaken a few years ago by dairy scientists at New York State Agricultural Experiment Station to develop smoked cheese. The venture proved successful with natural cheese and the studies have been extended to other types.

"In 1936 our efforts were directed toward making a natural cheese with a smoked flavor," says Prof. J. C. Marquardt. "Liquid smoke and smoked salt were used. It was possible to produce quality smoked Cheddar and provolone type cheeses by adding small amounts of liquid smoke either to the milk prior to setting or to the whey directly after cutting. Liquid smoke is superior from a sanitary standpoint to the antiquated smoke house procedure. Smoked salt, though effective in giving a smoked flavor, has the disadvantage of causing a streaking of the curd.

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Agricultural commodities delivered to the British Government for Lend-Lease shipment totaled more than 3,311,000,000 pounds up to January 1, 1942. Total cost of these commodities, delivered at shipping points, was over \$367,000,000.

MILK PRODUCTION IN 1941 REACHED RECORD HIGH TOTAL

With annual milk production per cow reaching a new peak and with milk cow numbers approaching the pre-drought maximum, following 3 successive yearly increases, the amount of milk produced on farms in 1941 was by a considerable margin the highest yearly production ever obtained. Estimates place the quantity of milk produced on farms in 1941 at 115.5 billion pounds. The 1941 production of 368 pounds of milk for each person in the United States is the highest in the 18-year period for which estimates are available and 7 percent higher than the average for the 1931-40 period.

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WICKARD CALLS ON COTTON FARMERS TO PLANT FULL ACREAGE ALLOTMENT

Secretary of Agriculture Wickard has called on the Nation's cotton farmers to plant their full national acreage allotment of about 27,400,000 acres of cotton in 1942 and recommended that as much of this allotment as possible be planted in medium and longer staple varieties, in order to assure adequate supplies for military requirements. Farmers last year underplanted the national cotton allotment by some four million acres. The 1941 crop of 10,976,000 bales was produced from a planted acreage of 23,250,000. The 1941 allotment was approximately 27,400,000 acres.

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Despite the fact that Green Mountain potatoes are susceptible to disease, there are more acres of them grown in Maine than of any other variety, American Agriculturalist reports. The popularity of Katahdins is increasing, even though farmers are not completely satisfied with the variety. Market men agree that the quality of Chippewas is not "tops." Erlaine yields well, but has undesirable characteristics. Houma is arousing a lot of interest and some growers report it to be the best of the newer varieties. Sebago is resistant to late blight, but is susceptible to leaf roll and matures late. Maine growers still consider the Cobbler the best of the early potatoes.

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The life of your tires can be increased by at least 5,000 miles, says Dr. S. D. Lesesne of Oklahoma City University, by the following formula: Rub the tire vigorously with a small rag saturated with glycerin. Then while the glycerin is still damp, rub powdered sulfur over the surface of the rubber. The glycerin serves to preserve the elasticity of the rubber and the sulfur gives a glossy insulating finish. The treatment should be given twice monthly for best results.

-PERTAINING TO MARKETING-

The following reports and publications, issued recently, may be obtained upon request from the Agricultural Marketing Administration:

Milk Market Regulation and Northeastern Dairying (Address).....

By Roy F. Hendrickson

Farm Tractors: Type, Size, Age, and Life. . . By A. P. Brodell
and R. A. Pike

Results of Fiber and Spinning Tests of Some Varieties of Cotton
Grown in Texas, Crop of 1940

Driven-in Receipts of Livestock, 1941 . . . By Edna M. Jordan

Analysis of Data Relative to the Maturity of Florida Early and
Mid-Season Common Sweet Oranges, Seasons 1938, 1939, and 1940
. . . By William E. Lewis

Improved Bates Laboratory Aspirator . . . By E. N. Bates

Standards:

Terms Used in the Classification of Linters by the U. S. Board of
Cotton Linters Examiners

U. S. Standards for Strawberries (Effective March 23, 1942)

Tentative U. S. Standards for Grades of Processed Raisins
(Effective March 2, 1942)

Market Summaries:

Wholesale Market Prices at San Francisco for Certain Fruits and
Vegetables, 1941 . . . By A. M. McDowell and M. F. Hoyt

Wholesale Market Prices at Los Angeles, Fruit and Vegetables,
1941 . . . By A. E. Prugh and R. N. Pearce

During the past few months we have received a number of letters from newspapers and farm magazines requesting permission to reprint material from Marketing Activities. This is all to the good, though such requests are really unnecessary. The articles and items carried in Marketing Activities are not restricted in any way, and, so far as republication is concerned, the sky's the limit. However, if it isn't too much trouble, we would like to have copies of the publications in which material from Marketing Activities appears. --Editor

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